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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,775

07/10/2003

Andrea Zanardi

1986

7590 03/22/2007  
Walter H. Schneider  
21530 BEECHWOOD RD.  
CIRCLEVILLE, OH 43113

EXAMINER

DELCOTTO, GREGORY R

ART UNIT

PAPER NUMBER

1751

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/616,775

Applicant(s)

ZANARDI

Examiner

Gregory R. Del Cotto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6,9 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6,9 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. Claims 6, 9, and 17-20 are pending. Claims 1-5, 7, 8, and 10-16 have been canceled. Applicant's arguments and amendments filed 12/21/06 have been entered.

### **Objections/Rejections Withdrawn**

The following objections/rejections as set forth in the Office action mailed 8/14/06 have been withdrawn:

The rejection of claims 9, 17, and 18 under 35 U.S.C. 102(b) as being anticipated by WO97/45523 has been withdrawn.

The rejection of claims 17 and 18 under 35 U.S.C. 102(b) as anticipated by WO 99/15256 has been withdrawn.

The rejection of claims 9, 17, and 18 under 35 U.S.C. 102(e) as anticipated by Jewell et al (US 6,524,348) has been withdrawn.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6, 9, and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to instant claims 18-20, the specification, as originally filed, provides no basis for "...at least one week", "...at least three weeks", or "...at least eight weeks" as now recited by instant claims 18-20, respectively. While the specification does provide basis for 12 weeks, the specification does not provide basis for at least one, three or eight weeks which has no upper limit and reads on 20 weeks, 50 weeks, 1 year, 2 years, etc. Thus, this is deemed new matter.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on-sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO97/45523.

'523 teaches a method for cleaning apparatus used during the production of foodstuffs, in particular the filtration thereof, wherein this apparatus is contacted after use with a cleaning system based on the combination of a cyclic nitroxyl compound and hypohalite. See Abstract. Suitable nitroxyl compounds include 4-hydroxy-2,2,6,6-tetramethylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See page 3, lines 30-35. In combination with a hypohalite, it is possible to obtain a rapid removal of the contaminations by using catalytic amounts of the nitroxyl compound. See page 3, lines 19-26.

The concentration of the cyclic nitroxyl compound preferably ranges between 1 and 150 mg/l, more in particular between 2 and 25 mg/l. Such concentrations of nitroxyl compound can be properly combined with hypohalite concentrations of at least 0.5 g/l, preferably 0.75 to 10 g/l. See page 4, lines 5-20. The hypohalite may be a combination of hypochlorite and an alkali bromide. See claim 7. Note that, with respect to the process limitation as recited by instant claim 18 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts that, the composition as taught by '523 would stabilize the active chlorine content of the cleaning composition because '523 teaches adding the same hindered amine compound to a liquid composition containing

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hypochlorite in the same amounts as recited by the instant claims. Additionally, the Examiner asserts the broad teachings of '523 suggest storing the cleaning composition containing a hypochlorite and hindered amines for up to 8 weeks as recited by instant claims 18-20, with a reasonable expectation of success, because it is well known to store cleaning compositions for extended periods until the time of use and '523 states that the composition containing hypochlorite and hindered amines is mixed in water which is then added to the contaminated apparatus.

'523 does not teach, with sufficient specificity, a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to stabilize a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of '523 suggest a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

Claims 9 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jewell et al (US 6,524,348).

Jewell et al teach a method of making carboxylated cellulose fibers whose fiber strength and degree of polymerization is not significantly sacrificed. The method

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involves the use of cyclic nitroxide free radical compounds as a primary oxidant and a hypohalite salt as a secondary oxidant in an aqueous environment. See Abstract. The amount of nitroxide required is in the range of about 0.005 to 1% based on cellulose present. The nitroxide may first be premixed with a portion of an aqueous hypohalite to form a homogeneous solution before addition to the cellulose fiber slurry. A preferred hypohalite is sodium hypochlorite. Sodium hypochlorite is inexpensive and readily available as a stable aqueous solution with about 4 to 10% NaOCl w/v. See column 5, lines 25-69. The usage of NaOCl may be in the range of about 6.5 g/l of pulp slurry. Usage of NaOCl based on cellulose will be within the range of about 0.5 to 35% by weight, preferably about 1.3 to 10.5% by weight. Suitable nitroxide compounds include 4-hydroxy-2,2,6,6-tetra-methylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See column 9, lines 1-45.

Specifically, Jewell et al teach an oxidizing solution containing 100 mg of nitroxide compound, 1 g NaBr, and about 2 ml of a 5.25% solution of NaOCl. Note that, with respect to the process limitation as recited by instant claim 1 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts that, the composition as taught by Jewell et al would stabilize the active chlorine content of the cleaning composition because Jewell et al teach adding the same hindered amine compound to a liquid composition containing hypochlorite in the same amounts as recited by the instant claims. Additionally, the Examiner asserts the broad teachings of Jewell et al suggest storing the cellulose-treating composition containing a hypochlorite and hindered



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amines for up to 8 weeks as recited by instant claims 18-20, with a reasonable expectation of success, because it is well known to store treatment compositions for extended periods until the time of use and Jewell et al states that the composition containing hypochlorite and hindered amines is mixed in water which is then used to treat the cellulose fiber.

Jewell et al do not teach, with sufficient specificity, a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to stabilize a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of Jewell suggest a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

Claims 6, 9, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ambuter et al (US 6,083,422) in view of WO 97/45523.

Ambuter et al teach thickened aqueous bleach compositions containing either an alkali metal hypohalite or peroxygen bleach. Compositions containing hypohalite or peroxygen bleaches are particularly difficult to thicken with sufficient stability for commercial value. The addition of a rheology stabilizer minimizes the loss of stability

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over time and enable compositions of varying bleach and pH level to be obtained. See Abstract. The rheology modifier is used in amounts from about 0.01 to 10% by weight and includes a polymer which can be a non-associative thickener or stabilizer such as a homopolymer or a copolymer of an olefinically unsaturated carboxylic acid or anhydride monomer. See column 6, lines 10-65.

Ambuter et al do not teach the use of a hindered amine or a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

'523 is relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a hindered amine in the composition taught by Ambuter et al, with a reasonable expectation of success, because '523 teaches that the use of such compounds in a similar bleaching composition acts as a catalyst for a hypochlorite compound and further, Ambuter et al teach the use of alkali metal hypochlorite compounds for bleaching in general. Note that, the Examiner asserts that, the composition suggested by Ambuter et al in combination with '523 would have the stabilized active chlorine content as recited by the instant claims because the teachings of Ambuter et al in combination with '523 teach forming a composition containing the same components in the same proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition containing an alkali metal hypochlorite,

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hindered amine, polymer thickening agent, and the other requisite components of the composition in the specific amounts as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of Ambuter et al in combination with '523 suggest a composition containing an alkali metal hypochlorite, hindered amine, polymer thickening agent, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

Additionally, the Examiner asserts the broad teachings of Ambuter et al in combination with '523 suggest storing the cleaning composition containing a hypochlorite and hindered amines for up to 8 weeks as recited by instant claims 18-20, with a reasonable expectation of success, because it is well known to store cleaning compositions for extended periods until the time of use.

Claims 9 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over by WO 99/15256.

'256 teaches that filters for water purification can be cleaned by treatment with a calcium-binding agent, preferably followed by catalytic oxidation, for example with hypochlorite in the presence of a nitroxyl agent. See Abstract. Suitable nitroxyl agents include 4-hydroxy-2,2,6,6-tetra-methylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See page 2, lines 1-15. The nitroxyl compound may be used in amounts from 0.1 to 5% by weight. See page 2, lines 20-25. Note that, with respect to the process limitation as recited by instant claim 1 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts that, the

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composition as taught by '256 stabilize the active chlorine content of the cleaning composition because '256 teaches adding the same hindered amine compound to a liquid composition containing hypochlorite in the same amounts as recited by the instant claims. Additionally, the Examiner asserts the broad teachings of '256 suggest storing the cleaning composition containing a hypochlorite and hindered amines for up to 8 weeks as recited by instant claims 18-20, with a reasonable expectation of success, because it is well known to store cleaning compositions for extended periods until the time of use and '256 states that the composition containing hypochlorite and hindered amines is mixed in water which is then used to clean the contaminated filter.

'256 does not teach, with sufficient specificity, a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to stabilize a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of '256 suggest a method of stabilizing a hypochlorite compound by adding to said compound a hindered amine, followed by storing the resultant composition for a period of at least a week as recited by the instant claims.

### ***Response to Arguments***

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With respect to '523, Jewell, or '256, Applicant states that none of these references require a storage step for at least a week as now recited by the instant claims. In response, note that, the Examiner asserts that, as stated above, each of these references suggest combining a hypochlorite with a hindered amine which is then used for cleaning or treating cellulose and that it is well known to store cleaning compositions or treatment compositions for extended periods such as a week until the time of use. Thus, the Examiner asserts that '256, Jewell et al or '523 suggest the method as recited by the instant claims.

With respect to the rejection under 35 USC 103 using Ambuter et al in combination with '523, Applicant states that there is no reason why one skilled in the art would have had any reason to combine the teachings of the two documents. Ambuter teaches cleaning compositions which have industrial and domestic applications. See column 4, lines 40-50. Note that, '523 is a secondary reference relied upon for its teaching of a hindered amine. The Examiner maintains that one of ordinary skill in the art would clearly have been motivated to use a hindered amine such as TEMPO in the cleaning composition taught by Ambuter et al, with a reasonable expectation of success, because '523 teaches that the use of such compounds in a similar bleaching composition acts as a catalyst for a hypochlorite compound and further, Ambuter et al teach the use of alkali metal hypochlorite compounds for bleaching in general.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory R. Del Cotto  
Primary Examiner  
Art Unit 1751

GRD  
March 17, 2007